

CLAIMS

1. A transmission apparatus which is connected to a network where transparent data transmissions are performed using a plurality of client protocols, and
5 which is designed to accommodate at least one of the plurality of protocols as a primary client protocol, wherein

the transmission apparatus is equipped with an alarm transfer device for transferring alarm
10 information indicating the occurrence of a failure to a destination transmission apparatus via the network, and

the alarm transfer device transfers the alarm information by using an alarm frame created based on a prescribed client protocol unified among the
15 plurality of client protocols.

2. A transmission apparatus as claimed in claim 1, wherein the alarm transfer device performs switching from the primary client protocol to the prescribed unified client protocol when a failure is detected, and performs
20 switching from the prescribed unified client protocol to the primary client protocol when recovery from the failure is detected.

3. A transmission apparatus as claimed in claim 2, wherein, when a failure is detected, switching is made to a clock to be used by the prescribed unified client
25 protocol and, when recovery from the failure is detected, switching is made to a clock to be used by the primary client protocol.

4. A transmission apparatus as claimed in claim 1, wherein the alarm transfer device performs switching from the primary client protocol to the prescribed unified client protocol when the alarm frame is received from the destination transmission apparatus and performs switching
30 from the prescribed unified client protocol to the primary client protocol when the alarm frame is no longer received.

5. A transmission apparatus as claimed in claim 4,

wherein, when the alarm frame is received, switching is made to a clock to be used by the prescribed unified client protocol, and when the alarm frame is no longer received, switching is made to a clock to be used by the primary client protocol.

6. A transmission apparatus as claimed in claim 1, wherein the prescribed unified client protocol is a protocol having a dedicated frame for network management and maintenance, and the primary client protocol is a protocol that does not have a dedicated frame for network management and maintenance.

7. A transmission apparatus as claimed in claim 1, wherein the alarm frame is a SONET/SDH frame.

8. A transmission apparatus as claimed in claim 1, wherein the alarm frame is a digital wrapper frame.